SONY

3-750-257-22 (1)

Compact Disc Player

Operating Instructions

COMPACT disc DIGITAL AUDIO

CDP-C500
CDP-C400
CDP-C44
CDP-C401

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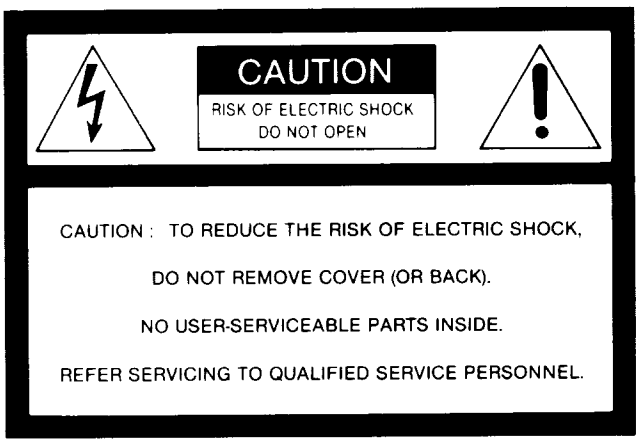
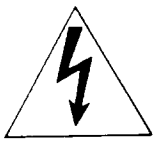
Warning

To prevent fire or shock hazard, do not expose the unit to rain or moisture.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

INFORMATION

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures :

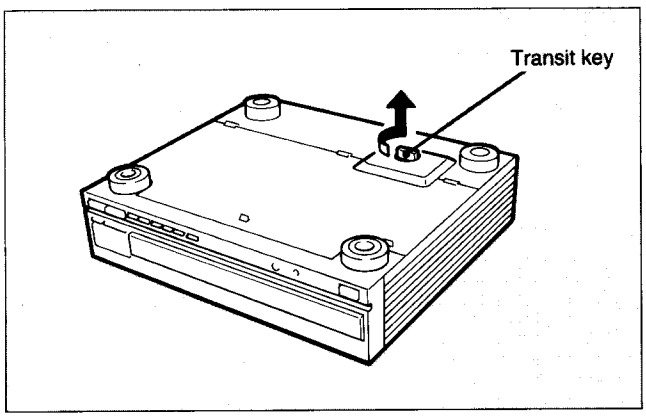
Reorient the receiving antenna
Relocate the equipment with respect to the receiver
Move the equipment away from the receiver
Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful :

"How to Identify and Resolve Radio-TV Interference Problems".

This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

Note on the Transit Key



The white transit key on the bottom exterior of the unit protects the optical system against shock during transportation. Before operating the CD player, be sure to remove the key by following the instructions on the label, and store it in a safe place.

When transporting the unit, replace the key in its original hole and lock it in place.

Owner's Record

The model and serial numbers are located at the rear. Record these numbers in the spaces provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. _____ Serial No. _____

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This indicates a function operated only from the remote commander.

This indicates a function operated only on the main unit.

Introducing This CD Player

- **The 4 TIMES OVERSAMPLING DIGITAL FILTER compact disc player (DUAL D/A CONVERTER SYSTEM) is equipped with 5 disc trays** which allow you to choose from a large number and wide variety of selections. Up to 32 steps of program is possible from the 5 discs.
- **Any disc at any time can be played** using the DISC 1 to 5 buttons on the remote commander.
  (For CDP-C500 and CDP-C44 models only.)
- **Shuffle play** (page 9)
  Once a selection is played, it will not be played once more until the random order is completed.
- **Fading in/Fading out** (page 8) [ ]
  You can begin a selelction fading in and end it fading out.

Differences by Model and Area

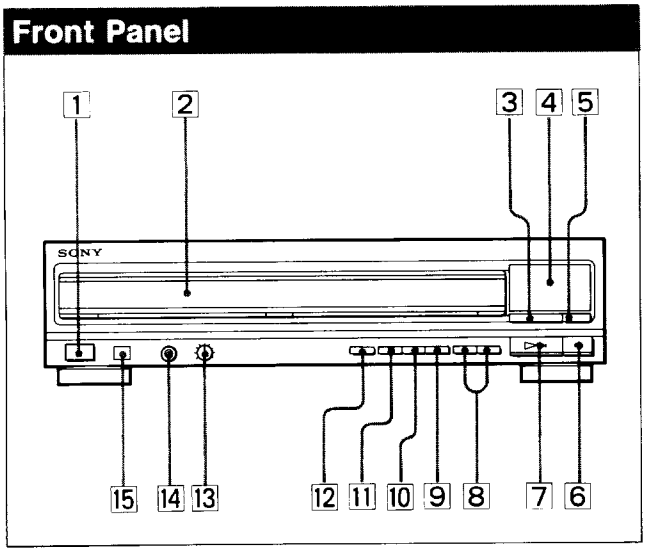
This Instruction manual covers CDP-C500, CDP-C400, CDP-C44, and CDP-C401. Their performance and operation are identical except for the following:

- The CDP-C400 and CDP-C401 are not supplied with a remote commander, they do not have those functions activated only by remote commander, which are indicated with [ ] mark in this instruction manual.
- The CDP-C401 does not have a PHONES (headphones) jack and a LEVEL control.

The illustrations used in this manual are of the CDP-C500.

Location and Controls

Front Panel

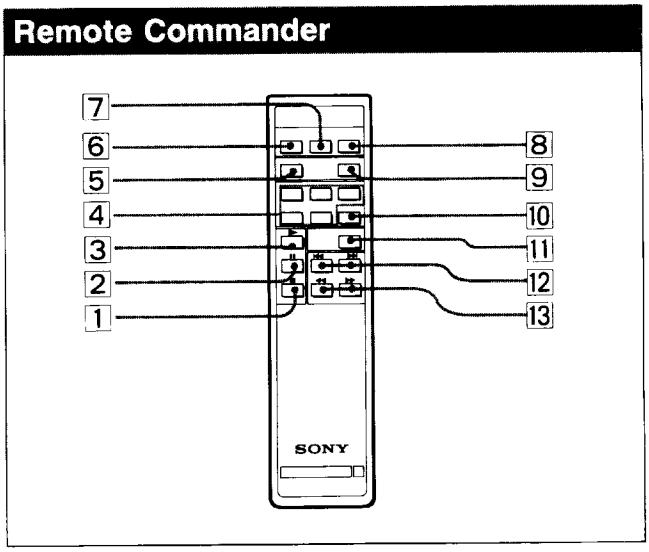


Refer to the pages indicated in ● for details.

1 POWER switch ❻
2 Disc tray ❻
3 ▲ OPEN/CLOSE button ❻
4 Display window ❻
5 DISC SKIP button ❻
6 ■ (stop) button ❻
7 ▶II (play/pause) button ❻
8 ⏮⏭ (AMS*/RMS**) button ❽
9 CONTINUE button ❻
10 SHUFFLE button ❾
11 PROGRAM button ⓫
12 TIME button ❼
13 (headphone) LEVEL control ❻
14 PHONES (headphones) jack ❻
15 Remote sensor ❺

*AMS is the abbreviation of Automatic Music Sensor.
**RMS is the abbreviation of Random Music Sensor.

Remote Commander



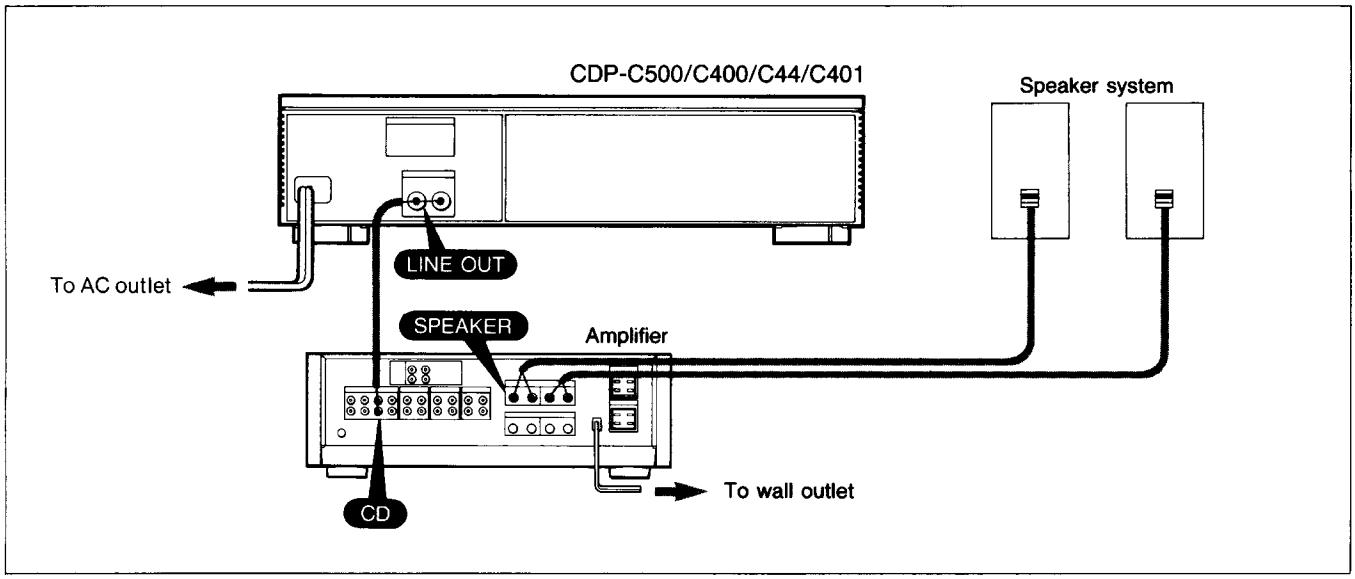
Refer to the pages indicated in ● for details.

1 ■ (stop) button ❻
2 II (pause) button ❻
3 ▶ (play) button ❻
4 DISC 1 ~ 5 buttons ❽
5 TIME button ❼
6 PGM (program) button ⓫
7 SHUFFLE button ❾
8 CONTINUE button ❻
9 REPEAT button ❿
10 DISC SKIP button ❽
11 FADER button ❽
12 ⏮⏭ (AMS*) buttons ❽
13 ◀◀ ▶▶ (manual search) buttons ❽

Connecting the CD Player

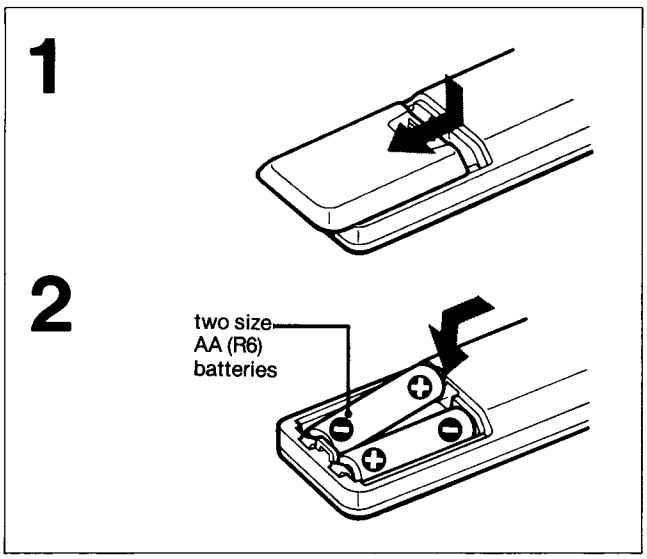
Notes on Connection

- Turn off the power of each unit before making connections.
- Connect the AC power cord last.
- Be sure to insert the plugs firmly into the jacks. Loose connection may cause hum and noise.
- Leave a little slack in the connecting cord to allow for inadvertent shock or vibration.
- Cord plugs and jacks are color coded: Rod plugs and jacks are for the right channel (R) and white ones for the left channel (L).



Preparing the Remote Commander

Installing Batteries



On battery life

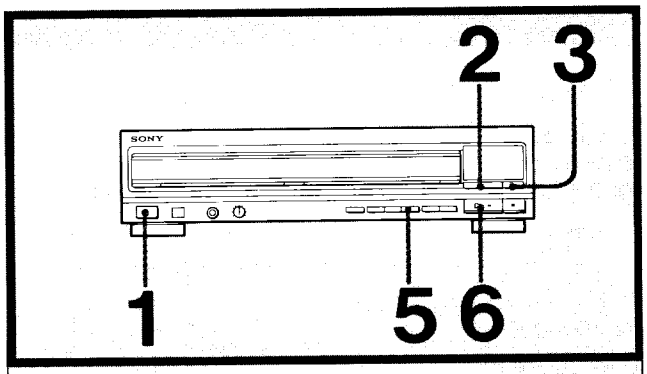
- About half a year of normal operation can be expected when using the Sony SUM-3(NS) batteries.
- When the batteries are run down, the remote commander will not operate the unit. In this case, replace both batteries with new ones.

Notes on the remote commander and remote control operation

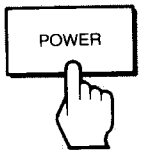
- Keep the commander away from extremely hot or humid places.
- Avoid dropping any foreign objects into the commander casing, particularly when replacing the batteries.
- Avoid exposing the remote sensor to direct sunlight or lighting apparatus. Such exposure can cause a malfunction.
- To avoid damage caused by battery leakage and corrosion, remove the batteries when the commander will not be used for a long time.

Playing a Disc

Before playing a disc, turn on the amplifier and set the input selector to the CD player position.



1



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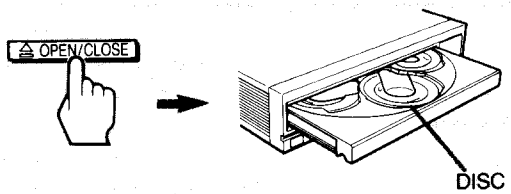
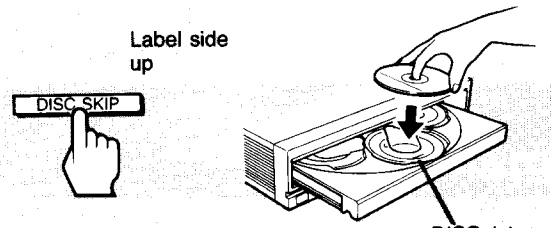
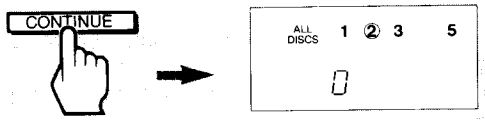


3

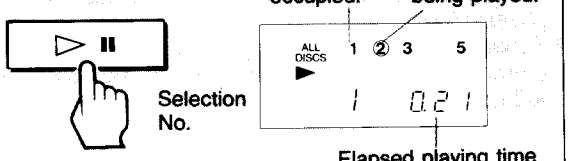


4 To play more than one disc, repeat step 3 to put additional discs in the desired order.

5 Choose whether to play "1 DISC" or "ALL DISCS"



6



To stop play

To stop for a moment during play, press ▶II (or II on the remote commander).
Press again to resume play.
To stop play. Press ■.
To stop play and open the tray. Press ≙.

When you use with the stereo system

Turn on the amplifier, and select "CD" of the input selector to listen to the compact disc player.

Caution on adjusting volume
Do not turn up the volume while listening to a portion with very low level inputs or no audio signals. If you do the speakers may be damaged when a peak level portion is played.

When you listen with the headphones

(for CDP-C500/C400/C44 only)
Connect the headphones and control the volume with the LEVEL control.

Notes

- The tray number of an empty tray will be displayed until the empty tray number is set to play. Once they are recognized empty, they will disappear.
- If there are not discs at all in the trays when played, "no disc" will be indicated.

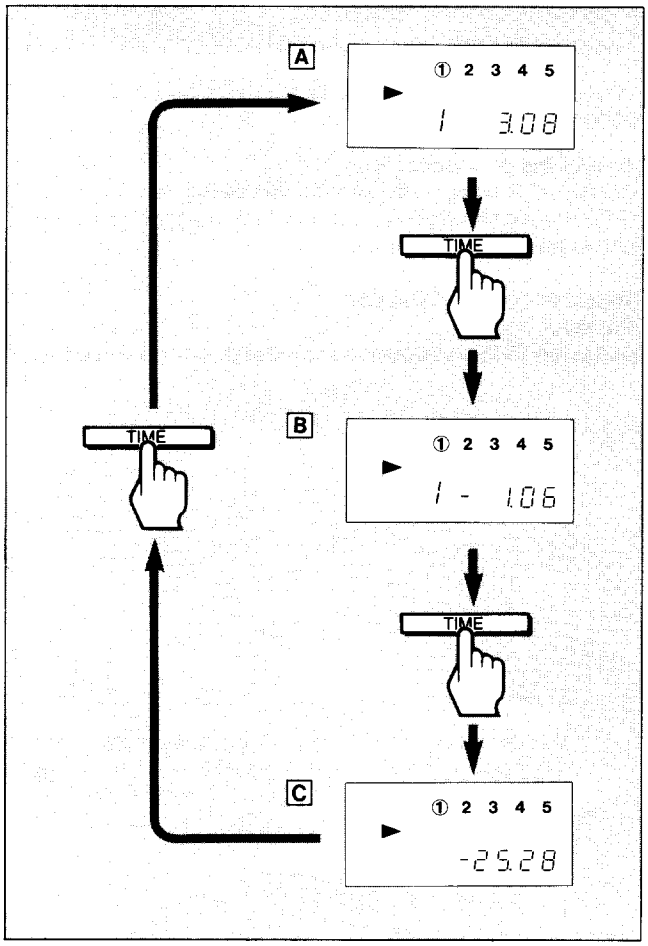
Notes on handling discs

- To keep the disc clean, handle the disc by its edge. Do not touch the surface.
- Do not stick paper or tape on the disc.

- Do not expose the disc to direct sunlight or heat sources such as hot air ducts, or leave it in a car parked in direct sunlight as temperature may rise considerably.
- After playing, store the disc in its case.

To play a 8 cm (3-inch) CD

Place it on the inner circle of the tray. If the disc is provided with an adaptor, first remove it. Do not put a normal CD (12 cm/5-inch) on top of a 8 cm CD.



Information display

If you press ⏏ or the compartment itself to close the compartment, the total number of selections and the total playing time of the disc to be played are displayed for a few seconds.

Each time you press TIME during play, the display changes to give you the following information.

- [A] Elapsed time in a selection (automatically displayed when play begins)
- [B] Remaining time in a selection
  "----" indication will appear in the display window instead of numbers if a selection numbered 21 or higher is selected.
- [C] Remaining time of the disc

Note

Total remaining time is only available during continue mode. It will not be displayed by pressing the TIME button during PROGRAM or SHUFFLE mode.

Selecting a Desired Disc

By using the DISC 1 to 5 buttons or the DISC SKIP button during play, you can locate the beginning of any disc.

To select a particular disc (for CDP-C500/C44 only)	Press the corresponding DISC 1 to 5 button.
To move to the disc tray next to the current one	Press DISC SKIP.

Locating a Particular Selection

Locating a selection in sequence (Automatic Music Sensor)
You can locate the beginning of a selection on the disc being played.

To locate the beginning of the selection being played	Press ⏮ once.
To locate the beginning of the next selection	Press ⏭ once.

Continue to press until the selection you wanted has been located.

Locating a Particular Point in a Selection (for CDP-C500/C44 only)

Locating a point in sequence (Manual Search)
You can locate a particular point in a selection during play by monitoring the high-speed sound.

To go back at high speed	Keep ◀◀ pressed.
To go ahead at high speed	Keep ▶▶ pressed.

Release the button when you reach the point in the selection you want.

To locate at high speed
Press ◀◀ or ▶▶ in the pause mode. Search speed will increase three times, but there will be no sound. Find the desired point by watching the numbers in the display.

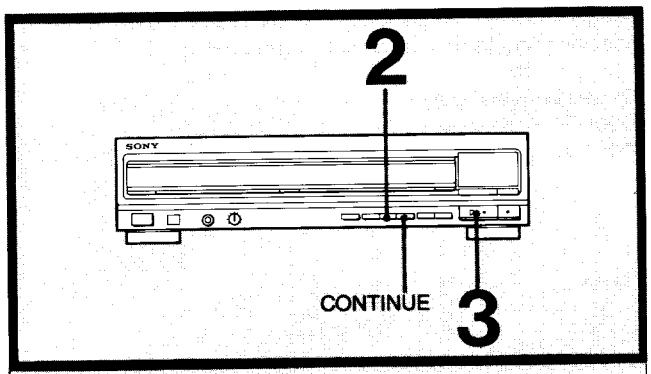
Fading in/Fading out

You can have the play fade in and fade out for 5 seconds.

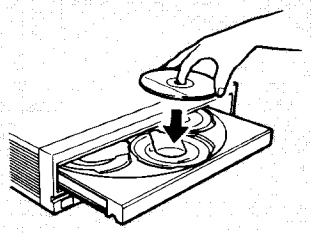
To end the play fading out
Press FADER when you want to start fading out.
II flashes in the window, and play fades out for 5 seconds and enters the pause mode.

To restart the play fading in
Press FADER.
▶ flashes in the window, and play fades in for 5 seconds.

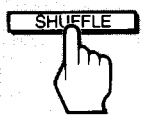
Playing in a Random Order – Shuffle Play



1



2 Decide whether to shuffle between all discs or one, depending on the number of discs inserted.
To shuffle "ALL DISCS", press once.
To shuffle "1 DISC", press twice.



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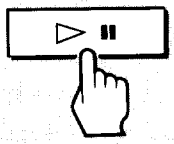


You can have the selections played in a random order (up to 99). The unit will play all the discs or just one disc you desire.
Once a selection is played, it will not be played again until the random order is completed.

To skip the selection
To skip to the next selection, press the ▶▶| button. To return to the beginning of the selection being played, press the |◀◀ button.

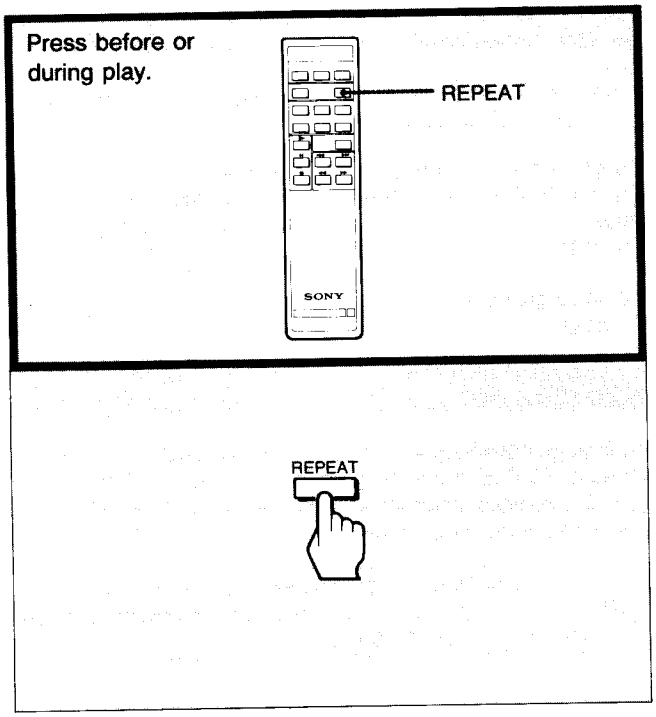
To stop playing
Press ■.

To cancel shuffle play
Press CONTINUE and return to the normal playing mode.

To change from Program or Continue Play to Shuffle Play
Press SHUFFLE during program or continue play. The program mode will be cleared and shuffle play will begin from the current selection being played.

What is this indication?
This indication appears while the player is "shuffling" the selections.

Playing Repeatedly – Repeat Play

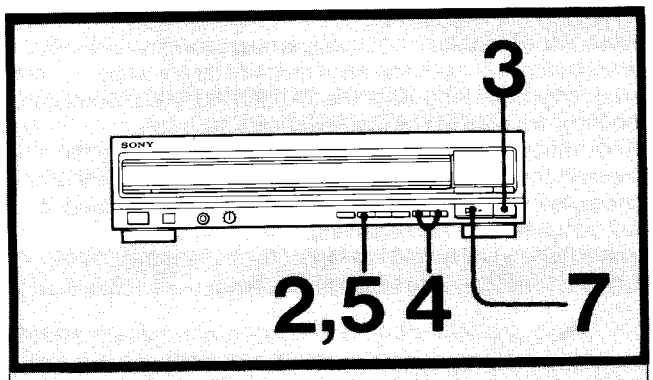


You can repeat a single disc or all the discs. The unit repeats on the current playing mode.

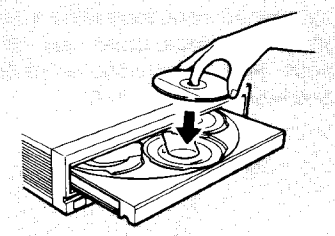
To cancel repeat play
Press REPEAT again.
"REPEAT" disappears.

Playing in a Desired Order – Program Play

You can make a program by designating up to 32 steps in the order you want them to be played. The unit will play the disc according to your program.



1



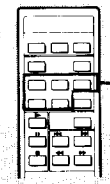
2

PROGRAM

"PGM" is displayed.

3 Choose the disc.

DISC SKIP or



DISC 1 to 5 buttons

4 Choose the selection.

⏮ ⏭

(To choose an entire disc, press ⏭, and then ⏮).

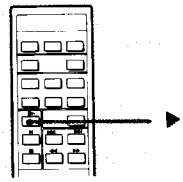
5

PROGRAM

6 To program additional selections on a same disc, repeat steps 4, and 5.
To program additional selections on another disc, repeat steps 3, 4, and 5.

7 After pressing PROGRAM:

▷ II or



You can play up to 32 steps* in the desired order.
*You can program one selection or one disc in a step.

To program a whole disc under a single program number
Simply skip step 4. The TRACK indicator will show "AL", which means that all the disc have been programmed under a single program number.

To program while observing the disc labels
You can program the selections with the disc compartment open.

Skipping to the next selection programmed
Press ⏭ during play.

Returning to the current programmed selection being played.
Press ⏮ during play.

To stop program play

Press ■ . The last selection number programmed will be displayed.
To resume play, press ▶ . Play begins from the beginning of the program.

You can play the same program repeatedly as long as you do not cancel program play or erase the program.

To cancel program play

Press CONTINUE and return to the normal playing mode. The program will be erased.

The program will be erased in the following situations

- ≙ is pressed during program play.
- Power is turned off.
- ■ is pressed continuously during stop.
  To clear only the last selection programmed, press ■ once.

To display the total playing time of the program

Press the TIME button after programing before playing. The time display will flash and each disc will be computed for the total programed time. After the addition has been completed, the program time will be displayed for 3 seconds.
When other programs are added, and the TIME button is pressed, the program time of the added program only will be computed. On the other hand, if even one step is cleared, it will compute from the beginning.
If selections numbered 21 or higher is programmed, the "- - -" indication will appear instead of numbers.

Checking the programmed selections

To check the programmed selections while a selection is being played or in the pause mode, press ▶▶| or DISC SKIP. Each time you press ▶▶| , the selections are displayed in the order they have been programmed.

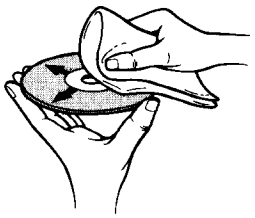
Maintenance

Cleaning the cabinet

Clean the cabinet, panel and controls with a soft cloth lightly moistened with mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.

Cleaning discs

Before playing, clean the disc with the cleaning cloth. Wipe the disc from the center out.



Do not use solvents such as benzine, thinner, commercially available cleaners or anti-static spray intended for analog discs.

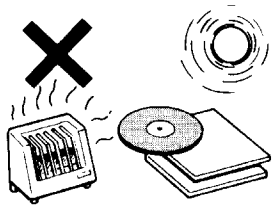
After playing, store the disc in its case.

Installing the CD Player

Notes on installation

- Place the unit in a location with adequate air circulation to prevent internal heat build up in the unit.
- Do not place the unit on a soft surface, such as a rug that would block the ventillation holes on the bottom.
- Do not install the unit,
  - near heat sources such as radiators or air ducts.
  - in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

Not this way.



On moisture condensation
If the player is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lens inside the unit. Should this occur, the player will not operate. In this case, remove the disc and leave the player turned on for about an hour until the moisture evaporates.

Precautions

On safety
- Operate the unit only on 120 V AC, 60 Hz.
- Should any liquid or solid object fall into the cabinet. Unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it will not be used for a long time. To disconnect the cord, pull if out by grasping the plug. Never pull the cord itself.
- As the laser beam used in this compact disc player is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

On operation
When the unit is not used, turn the power off, to conserve energy and to extend the useful life of your unit.

Important
Since the CD system boasts a wide dynamic range, the peaks of high level inputs are recorded with high fidelity, and the noise level is very low.
Do not turn up the volume while listening to a portion with no audio signals or very low level inputs if you do, the speakers may be damaged when a peak level portion is played.

For detailed safety precautions, see the leaflet "IMPORTANT SAFEGUARDS".

If you have any questions or problems concerning your unit, please contact you nearest Sony dealer.

Specifications

COMPACT DISC PLAYER

System	Compact disc digital audio system
Laser	Semiconductor laser (λ = 780 nm) Emission duration: continuous
Laser output	Max. 44.6μW* * This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.
Frequency response	2 Hz – 20kHz ($\pm$1 dB)
Signal to noise ratio	More than 100 dB
Dynamic range	More than 90 dB
Harmonic distortion	Less than 0.05% (1 kHz)
Channel separation	More than 95 dB (1 kHz)
Wow and flutter	Below measurable limit
Outputs	LINE OUT (phono jacks) Output level 2V (at 50 kilohms) Load impedance over 10 kilohms PHONES (stereo phone jack) (CDP-C500/C400/C44 only) Output level 0 - 10 mW (variable) (at 32 ohms)

General

Power requirements	120 V AC, 60 Hz
Power consumption	10 W
Dimensions	Approx. 430 × 110 × 385 mm (w/h/d) (17 × 4 3/8 × 15 1/4 inches) not including projecting parts and controls
Weight	Approx. 4.9 kg (10 lbs 13 oz), net

REMOTE COMMANDER
(supplied only for the CDP-C500/C44)

Remote control system	Infrared control
Power requirements	3 V DC with two size AA (R6) batteries
Dimensions	Approx. 43 × 20 × 175 mm (w/h/d) (1 1 1/16 × 13/16 × 6 15/16 inches)
Weight	Approx. 110 g (4 oz) including batteries

SUPPLIED ACCESSORIES

Audio signal connecting cord
(phono plug × 2 ⟷ phono plug × 2) (1)
Sony SUM-3 (NS) batteries (2)
Operating Manual (1)

Design and specifications subject to change without notice.

Troubleshooting Guide

The following checks will assist in the correction of most problems which you may encounter with your unit. Should any problem persist after you have made these checks, consult your nearest Sony service facility. Before going through the check list below, first refer back to the connection and operating procedures.

Trouble	Causes	Remedy
No audio from one or both channels	Incorrect operation of the amplifier	Operate correctly.
	Loose connection	Connect the cords firmly.
Play does not begin.	No disc in the disc compartment	Put disc(s) in the compartment.
	The player is in the pause mode.	Press ▶II (or II on the remote commander) to release pause.
	Moisture condensation	Leave the player turned on for about an hour.
	The disc is set upside down.	Set the disc with the label side up.
	The disc is tilted.	Set the disc correctly.
	The disc is extremely dirty.	Clean the disc.
Discs cannot be played continuously.	Play did not start from the disc in the DISC 1 tray.	Press DISC 1 to start play.
Remote commander does not operate the unit. (For CDP-C500 and CDP-C44 only).	The batteries are exhausted.	Replace both batteries.
	The remote commander is not pointed at the remote control sensor.	Point the remote commander to the sensor.
	There is an obstacle between the remote commander and the unit.	Remove the obstacle.
	The remote commander is too far from the unit.	Move closer.
Any operation is not possible.	The internal control program may not run.	Turn OFF the power and turn it ON again.